Hopewell Archeology:

The Newsletter of Hopewell Archeology in the Ohio River Valley

Volume 6, Number 1, September 2004

5. New Discoveries Right in Our Own Front Yard: Preliminary Results of Recent Research at Mound City Group

Jarrod Burks, Jennifer Pederson, Lynette Willsey, Dawn Walter Gagliano, and Kathy Brady-Rawlins

The Mound City Group: Past and Present

Mound City Group is probably the most extensively excavated Hopewell earthwork in Ohio. Squier and Davis (1848), William Mills (1922), and a whole host of more recent archaeologists, have conducted excavations within and between the site's 23 mounds and ca. 950 m of earthen embankment. In addition to their diggings in the mounds, Squier and Davis produced the first map of the 15.6-acre earthwork complex, which included other mounds and earthen enclosures in the vicinity of Mound City (Figure 1). Among these additional mounds and earthworks are a circular enclosure and four mounds to the west and northwest of Mound City. The larger of the two mounds located just south of the small circular enclosure northwest of Mound City, known as the Briggs Mound (33RO7), was excavated in the 1897 by Clarence Loveberry (Moorehead 1899). While Moorehead (1899:136) also mentions another mound that was excavated at the same time in the near vicinity, to our knowledge none of the remaining mounds west and northwest of Mound City that appear on the Squier and Davis map were excavated prior to their disappearance from the landscape. Additionally, only limited work has been conducted in non-mound areas among these enclosures and mounds. To better understand how prehistoric peoples used these earthworks and mounds near Mound City, exploration of non-mound areas must be undertaken. A project begun in June 2003 sought to address this need by studying a small area in the front yard of the visitor center at Mound City.

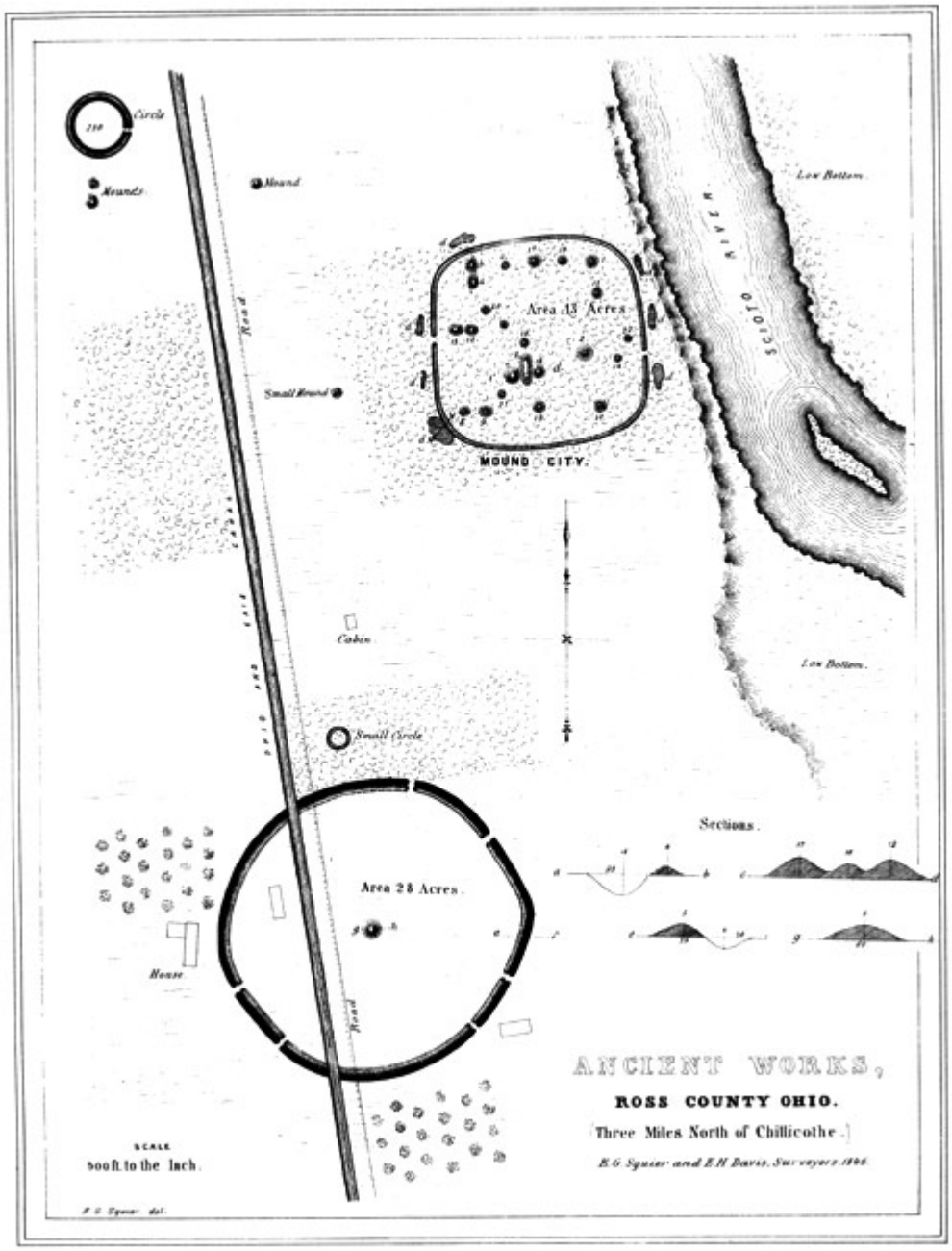

Figure 1 Squier and Davis map of Mound City and vicinity.

The project area covers 1,200 m² and contains one of the isolated mounds, now reconstructed, thought to have been mapped by Squier and Davis (Figure 2). The mound is located about 230 m to the west of the Mound City enclosure. Dimensions of the mound were not recorded in the 1840s, and no documentation exists for excavations of the mound or its immediate vicinity. However, a comparison of the Squier and Davis map and a modern map of the reconstructed elements of Mound City and the project area (Figure 3), show that the reconstructed mound is located about 200 m south and east of where Squier and Davis show it on their map.

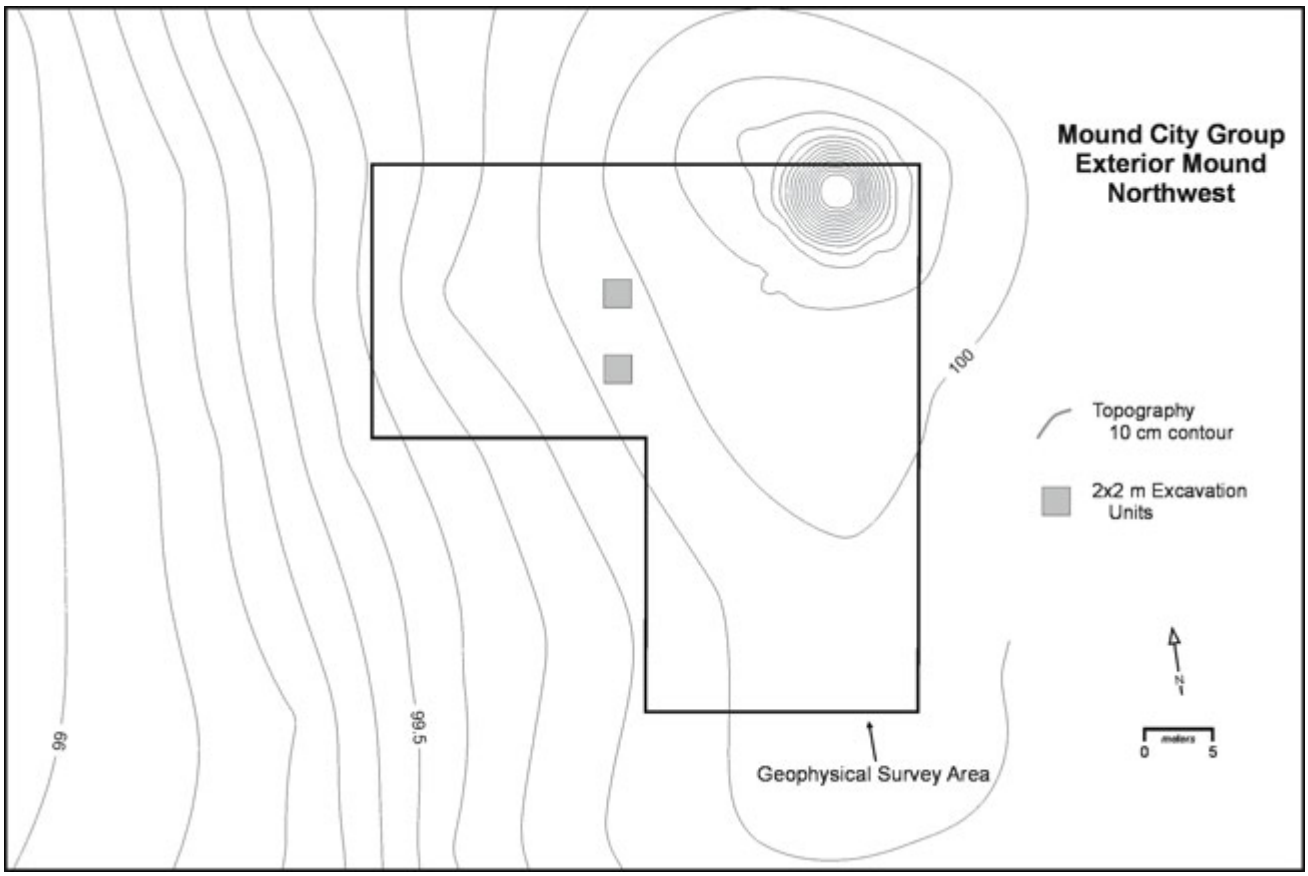

Figure 2 Close-up of the project area with topographic contours, geophysical survey area, and excavation unit locations.

How the reconstructed mound could be so far off the Squier and Davis location is easy to understand. After many decades of agricultural use, beginning perhaps as early as 1800, this area was used in 1917-1920 as a parade ground for Camp Sherman, a World War I training camp that covered the Mound City earthworks and miles of Scioto Valley floodplain (Figure 3). While Camp Sherman buildings were not part of the project area, the parade grounds were no doubt leveled off by cutting and filling bumps and gullies. This presumably accounts for the ultimate fate of mounds located within the parade ground area that once lined what is now State Route 104. Today the former parade ground area west of Mound City is a grassy lawn and the two mounds that appear on the Squier and Davis map of Mound City have been reconstructed to a height of 1.5 m and a diameter of 10 m, though apparently in the wrong locations.

Figure 1 Project area map showing the location of Camp Sherman structures, current mounds and earthworks, and mounds mapped by Squier and Davis.

Geophysical Survey

Our research in the vicinity of the northern reconstructed mound began with topographic mapping and geophysical testing of three 20-x-20-m blocks. Both magnetic gradient and electrical resistance data were collected. A Geoscan Research FM 36 fluxgate gradiometer was used for collecting magnetic gradient data every 12.5 cm along transects spaced 50 cm apart, yielding 6,400 readings per block. Resistance data were collected every 50 cm across the survey area using a Geoscan Research RM 15 resistance meter. A total of 1,600 resistance readings were recorded per block.

Geophysical data can provide a unique glimpse of subsurface deposits, as it does for this study. The reconstructed mound is clearly visible in the northeast corner of both the magnetic gradient data (Figure 4) and resistance data (Figure 5). It is particularly interesting that the extent of disturbance from the reconstruction is also visible as a rectangular area of lower magnetic gradient and resistance readings. At least 23 possible prehistoric features, among numerous historic features and artifacts, are visible in the magnetic gradient data. Similarly, the resistance data show multiple anomalies, a few of which are rectangular.

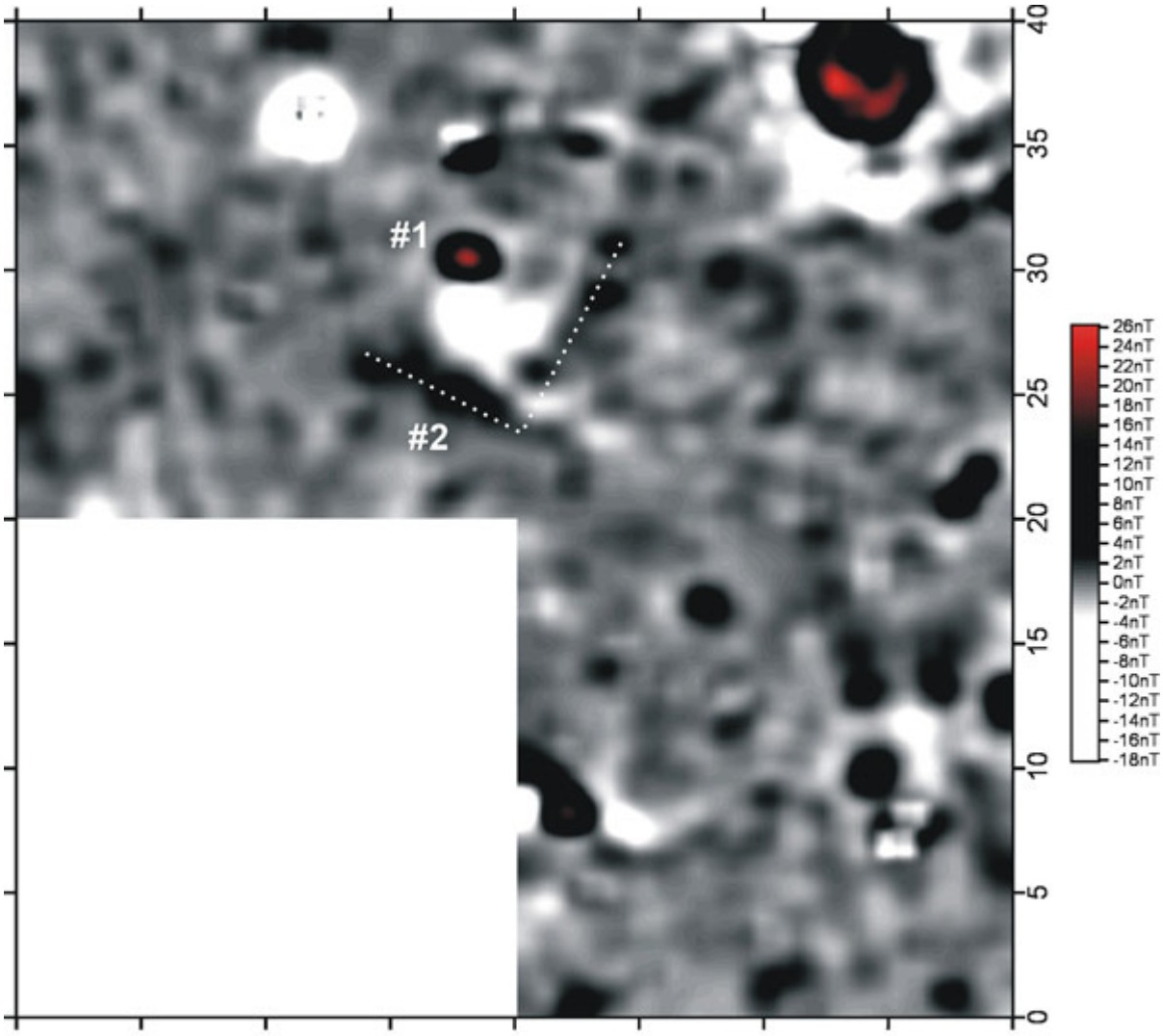

Figure 2 Magnetic gradient data.

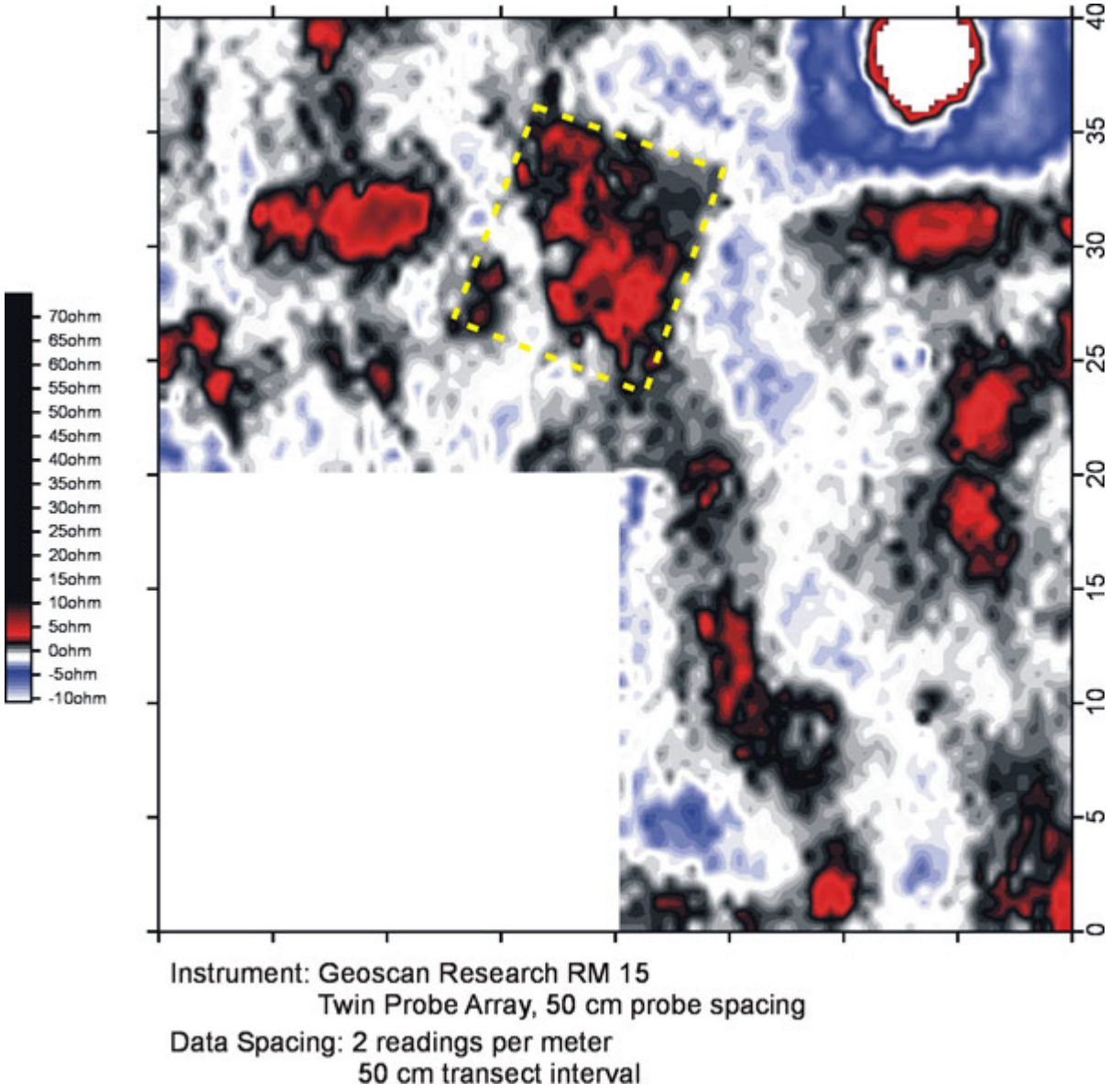

Figure 3 Electrical resistance data.

When the two data sets are superimposed, a large area containing both magnetic and resistance anomalies is apparent to the west of the mound. This area contains two magnetic anomalies. Anomaly 1 is circular, about 2.5 m in diameter, and has an unusually strong magnetic gradient intensity (37.65 nT) for a possible prehistoric feature. Anomaly 2 is linear, about 7 m long, and consists of above-average magnetic gradient readings (ca. 5 nT).

In our preliminary analysis we speculated that Anomaly 1 was a prehistoric fire pit feature and Anomaly 2 was possibly part of a series of post holes present along the southern and eastern sides of the large pit. In the resistance data, the same area as magnetic Anomalies 1 and 2 appears to have higher resistance readings arranged in a rectangular shape roughly 10 m². Was it possible that this resistance anomaly indicates the presence of a compacted floor? In combination, the geophysical data point to the presence of a possible structure to the west of the reconstructed mound. This was very intriguing at the time since we now know that all of the Mound City mounds were built over the remains of structures. Had we discovered the remains of a submound building and the actual spot where the nearby mound should have

been reconstructed? To determine the exact nature of these geophysical anomalies, ground-truthing was needed.

Excavations

To date, our excavations have focused on the two magnetic anomalies. Removal of the plowzone by hand has revealed a large circular pit at Anomaly 1 and patches of darker soil at Anomaly 2. In excavating Anomaly 1 (Figure 6), we have bisected the feature, removing the southern half in 10-cm levels down to a depth of about 1 m. The Anomaly 1 pit appears to be the remains of a thermal feature now filled with three distinct stratigraphic levels: a pottery-rich upper layer; a middle layer of redeposited subsoil containing significantly fewer artifacts but much gravel; and an organic-rich soil layer at the bottom containing fire-cracked rock and charcoal. Most of the pottery sherds represent a grit-tempered ware, with a couple excurvate rim sherds. One grit-tempered sherd, while heavily eroded, is clearly covered by a fine rocker stamping. In addition to the large amounts of pottery, a number of bladelets and biface fragments and lots of fire-cracked rock were also present in the feature fill.

Figure 4 Anomaly 1 bisected. The photo board reads: Mound City Group; Teacher's Workshop; Feature #1; North Wall Profile; June 30, 2004.

Only the eastern portion of Anomaly 2 was tested due to its large size. Screening of the plowzone produced a small collection of pottery sherds and flakes. More numerous was fire-cracked rock. The patches of darker soil at the base of the plowzone were tested further but no obvious cultural features could be defined. The source of Anomaly 2 thus proved to be elusive as none of the expected postholes were evident.

Figure 5 Bladelets from Anomaly 1.

Conclusions

At this time, preliminary results are inconclusive as to whether this area represents a structure. Excavations of both magnetic anomalies located artifacts, with bladelets (Figure 7) and a small piece of mica from Anomaly 1. The Anomaly 1 pit feature certainly appears to be related to some sort of Hopewell occupation. Given the large number of similar magnetic anomalies in the study area, perhaps this whole area to the south and west of the present mound was occupied during construction of the mounds within and outside of Mound City. A much larger magnetic survey conducted recently across much of the front yard of Mound City produced over 80 magnetic anomalies in three clusters, each of which might represent areas occupied by the Hopewell while visiting the Mound City area to participate in the ceremonial goings-on within and/or outside the earthwork. These findings outside Mound City, as with similar findings at Hopeton Earthworks and Hopewell Mound Group, show that quite a lot of evidence of Hopewell occupation yet exists at these old earthwork sites, despite hundreds of years of historic disturbance.

References Cited

Mills, William C.

1922 Exploration of the Mound City Group. *Ohio Archaeological and Historical Quarterly* 31:423–584.

Moorehead, Warren K.

1899 Report of Field Work in Various Portions of Ohio. *Ohio Archaeological and Historical Publications* 7:110–203.

Squier, Ephraim G., and Edwin H. Davis

1848 *Ancient Monuments of the Mississippi Valley*. Contributions to Knowledge No. 1. Smithsonian Institution, Washington, D.C.